

REMARKS

Reconsideration and allowance of this application are respectfully requested. Claims 1-7, 12, 14, 24, and 26 are cancelled. Claims 8-11, 13, 15-23, 25, and 27-31 remain in this application and, as amended herein, are submitted for the Examiner's reconsideration.

Claims 8, 16, 18, 20, and 28-30 have been amended solely to have the claims better conform to the requirements of U.S. practice. No new matter has been added by these amendments.

In the Office Action, claims 8-11, 13, 15-23, 25, and 27-31 were rejected under 35 U.S.C. § 102(e) as being anticipated by Walker (U.S. Patent No. 7,342,973). Applicants submit that the claims are patentably distinguishable over the relied on sections of Walker.

As an example, independent claim 8 recites:

determining, for a highest one of a plurality of transmission rates associated with the selected frequency band, whether a received field strength value exceeds a threshold value,

if the received field strength value at the highest transmission rate exceeds the threshold value, initiating communication with the second wireless communication device using the unused channel of the selected frequency band as a communication channel at the highest transmission rate,

if the received field strength value at the highest transmission rate does not exceed the threshold value, determining whether an immediately lower one of the plurality of transmission rates exceeds the threshold value,

if the received field strength value at the immediately lower transmission rate exceeds the threshold value, initiating communication with the second wireless communication device using the unused channel of the selected frequency band as a communication channel at the immediately lower transmission rate,

if the received field strength value at the immediately lower transmission rate does not exceed the threshold value,

(i) determining whether the received field strength value at a next lower one of the plurality of transmission rates exceeds the threshold value,

(ii) if the received field strength value at the next lower transmission rate exceeds the threshold value, initiating communication with the second wireless communication device using the unused channel of the selected frequency band as a communication channel at the next lower transmission rate,

(iii) if the received field strength value at the next lower transmission rate does not exceed the threshold value, repeating steps (i) through (iii) until the received field strength value at the next lower one of the plurality of transmission rates exceeds the threshold value or until the next lower one of the plurality of transmission rates is a lowest acceptable transmission rate[.]

(Emphasis added.) The relied on sections of Walker neither disclose nor suggest initiating communication with a second wireless communication device using an unused channel of a selected frequency band as a communication channel at a highest transmission rate if the received field strength value at the highest transmission rate exceeds the threshold value. Moreover, the relied on sections of Walker neither disclose nor suggest determining whether an immediately lower one of a plurality of transmission rates exceeds a threshold value if a received field strength value at a highest transmission rate does not exceed a threshold value. Further, the relied on sections of Walker neither disclose nor suggest initiating communication with a second wireless communication device using an unused channel of a selected frequency band as a communication channel at an immediately lower transmission rate if a received field strength value at the immediately lower transmission rate exceeds a threshold value. Still further, the

relied on sections of Walker neither disclose nor suggest (i) determining whether a received field strength value at a next lower one of a plurality of transmission rates exceeds a threshold value if a received field strength value at an immediately lower transmission rate does not exceed the threshold value and (ii) initiating communication with a second wireless communication device using an unused channel of a selected frequency band as a communication channel at the next lower transmission rate if a received field strength value at the next lower transmission rate exceeds the threshold value. Additionally, the relied on sections of Walker neither disclose nor suggest repeating steps (i) through (iii) until a received field strength value at a next lower one of a plurality of transmission rates exceeds a threshold value or until a next lower one of the plurality of transmission rates is a lowest acceptable transmission rate if a received field strength value at an immediately lower transmission rate does not exceed the threshold value and if a received field strength value at the next lower transmission rate does not exceed the threshold value.

The Office Action, in rejecting the various independent claims, relies on Figs. 1-2, 9-11, and 13-15, col. 7 lines 25-31 and 45-51, col. 8 lines 17-41, col. 8 line 52 - col. 9 line 5, and col. 9 lines 55-61 of Walker. None of these sections is concerned with carrying out any of the above steps if a received field strength value at a transmission rate exceeds a threshold value, and none of these sections is concerned with carrying out any of the above steps if a received field strength value at a transmission rate does not exceed a threshold value.

Specifically, such relied on sections of Walker describe:

As explained, a multi-band communication process

utilizes one or more frequency bands to transfer data from transmitter to one or more receivers. Referring to FIG. 1, it may be useful to categorize each frequency band as being in use by the communication process, as being available, but not being used, or as being avoided because the band is subject to excessive interference. ...

FIG. 1 shows an example of the channel state (also referred to as the channel configuration 100), where frequency bands 1 and 3 are used by the communication process, while band 4 is available, but not used by the communication process. Band 2 has been determined to be impaired by excessive interference and is therefore avoided for communication purposes.

(Col.7 11.25-31 and 45-51; emphasis added.) That is, frequency bands are avoided if the band is subject to or impaired by excessive interference. Such sections are not at all concerned with carrying out any step if a received field strength value at a transmission rate exceeds a threshold value, and such sections are not concerned with carrying out any step if a received field strength value at a transmission rate does not exceed a threshold value.

Another relied on section of Walker discloses:

At step 210, a determination is made as to whether there is interference present in one of the bands used by the communication process by determining if the intersection between the "used" set and the "interfered" set is non-empty (used*interfered≠{}). Several embodiment of the present invention are generally concerned with detecting interference in bands which are used during the current communication process, although a determination about interference in bands other than the bands currently used is equally possible, for example, to determine an alternate set of frequency bands having less interference than the current set. Thus, in one embodiment, non-used but available bands (sub-bands) are monitored to determine if there is an interference in such bands.

At step 210, if interference is detected, execution continues at step 220. Otherwise, execution continues at step 280.

At step 220, the device determines whether the

data throughput offered by the current set of used bands can be maintained by exchanging the bands in the "used" set, which are impaired by interference, with bands from the "available" set. If the level of throughput can be maintained, execution continues at step 230. Otherwise, execution continues at step 260.

At step 230, the device selects a set of bands from the "available" set in order to replace the set of interfered used bands. The new "used" set is the result of removing the "interfered" set from the current "used" set and adding the selected bands from the "available" set (new used = used -interfered + selected). The device determines, based on the new "used" set, a data coding scheme, and continues at step 240. An example of replacing an interfered band with an available band is illustrated in FIGS. 10-12.

(col.8 ll.17-41; emphasis added.) Namely, the presence of interference is detected or determined, and if bands are impaired by interference, a determination is made as to whether data throughput can be maintained. The section is not concerned with carrying out any step if a received field strength value at a transmission rate exceeds a threshold value, and the section is not concerned with carrying out any step if a received field strength value at a transmission rate does not exceed a threshold value.

A further relied on section of Walker sets forth:

If, at step 220, the throughput cannot be sustained, a determination is made at step 260 as to whether the communication link could be maintained with a reduced throughput. A reduced throughput is generally the result of reducing the number of bands used for communicating data by removing the bands containing interference. Various ways known in the art can be applied to make the determination as to whether the link can be maintained with reduced throughput. For example, the communication link can be attributed with upper and lower throughput requirements. The device can then compare a reduced throughput with the lower throughput requirement.

If the communication link can be maintained with a reduced throughput, the device proceeds at step 270.

At step 270, the new "used" set results from removing the "interfered" set from the "used" set (new

used=used-interfered). Also at step 270, the device determines, based on the new "used" set, a data coding scheme. Execution then proceeds at step 240. An example of removing an interfered band without a suitable replacement band is illustrated in FIGS. 13-15.

(col.8 1.52 - col.9 1.5; emphasis added.) Here, a determination is made as to whether data throughput can be maintained, a determination is made as to whether data throughput can be maintained with a reduced throughput, and an interfered with band is removed. This section is not concerned with carrying out any step if a received field strength value at a transmission rate exceeds a threshold value, and this section is not concerned with carrying out any step if a received field strength value at a transmission rate does not exceed a threshold value.

A still further relied on section of Walker teaches:

Methods of detecting an interfering signal in one or more sub-bands of a multi-band UWB communication scheme are generally based upon maintaining statistics on symbol errors and using those statistics to determine the presence of an interference, or using circuitry in the receiver to detect the presence of excess signal energy in a given sub-band.

(col.9 11.55-61; emphasis added.) Namely, this section merely describes detecting excess energy to determine the presence of an interference. The relied on section of Walker is not concerned with carrying out a step if a received field strength value at a transmission rate does not exceed a threshold value.

It follows, for at least the above reasons, that the relied on sections of Walker do not disclose or suggest the combination defined in claim 8 and therefore do not anticipate the claim.

Independent claims 13, 17, 18, 20, 25, 29, and 30 each call for features similar to those set out in the above excerpts of claim 8. Each of these claims is therefore patentably

distinguishable over the relied on sections of Walker for at least the reasons set out above regarding claim 8.

Further regarding independent claims 13, 17, 18, 25, 29, and 30, the Office Action further relies on col. 9 lines 12-24 of Walker. Here, Walker recites:

If, at step 210, it is determined that the "used" set is not subject to interference, a determination is made at step 280 as to whether the communication link would benefit from an increased throughput. Increasing the throughput is generally possible if the "available" set is non-empty. This can be the result of the device not using a band for a communication link, or for a band to be moved from the "interfered" set to the "available" set. If it is determined that the communication link can benefit from an increased throughput, for example, by comparing the increased throughput with the link's upper throughput boundary, execution continues at step 290. Otherwise, channel monitoring is resumed at step 200.

(Emphasis added.) That is, whether a band is subject to interference is determined, and whether a communication link would benefit from increased throughput is determined. Such section is not concerned with carrying out any step if a received field strength value at a transmission rate exceeds a threshold value, and such section is not concerned with carrying out any step if a received field strength value at a transmission rate does not exceed a threshold value.

Moreover, as pointed out in the August 13, 2008 and March 4, 2009 Amendments, this section of Walker is not prior art. Nevertheless, the Office Action erroneously contends:

Regarding comment on pg. 24, 2nd full par. " ... accurate translation ... ", the Examiner acknowledges comment. Walker reference was filed 20 February 2003 which is before the filing date of 22 April 2003 for the national stage application of the instant application. Walker has priority to the dates of **20 February 2002 and 26 September 2001** in which both dates are prior to the instant application priority claim of the Japanese application filed 23 April 2002. Therefore, as addressed above, the reference is hereby

maintained.

(Emphasis in the original.)

However, M.P.E.P. § 706.02(f)(1) clearly sets forth:

Example 2: Reference Publication and Patent of 35 U.S.C. 111(a) Application with a Benefit Claim to a Prior U.S. Provisional or Nonprovisional Application.

For reference publications and patents of patent applications filed under 35 U.S.C. 111(a), the prior art dates under 35 U.S.C. 102(e) accorded to these references are the earliest effective U.S. filing dates. Thus, a publication and patent of a 35 U.S.C. 111(a) application, which claims benefit under 35 U.S.C. 119(e) to a prior U.S. provisional application or claims the benefit under 35 U.S.C. 120 of a prior nonprovisional application, would be accorded the earlier filing date as its prior art date under 35 U.S.C. 102(e), assuming the earlier-filed application has proper support for the subject matter as required by 35 U.S.C. 119(e) or 120.

(Emphasis added; see also 37 C.F.R. § 1.78(a)(4), and M.P.E.P. §§ 201.11 and 2136.03.)

Here, neither the provisional applications filed on February 20, 2002 (i.e., U.S. Provisional Application Nos. 60/359,044, 60/359,045, 60/359,046, 60/359,064, 60/359,094, 60/359,095, and 60/359,147), nor the provisional application filed on September 26, 2001 (U.S. Provisional Application No. 60/326,093) disclose the relied on subject matter. Rather, the prior art date of the section of Walker that discloses this subject matter is either February 20, 2003 (the filing date of the application from which Walker issued) or September 26, 2002 (the filing dates of U.S. Application Nos. 10/255,111 and 10/255,103 of which Walker is a continuation-in-part).

As noted previously, the present application is a national stage application under 35 U.S.C. § 371 of International Application No. PCT/JP03/05107, filed April 22, 2003, which claims priority from Japanese Application No. JP 2002-120518, filed April 23, 2002. (An English-language

translation of Japanese Application No. JP 2002-120518 in which the translator, Masaaki Iwami, certified that the text comprises an accurate translation into English was filed with the March 4, 2009 Amendment.) Therefore, the priority data of the present application precedes the prior art date of the relied on section of Walker. Hence, such section of Walker is not prior art.

If the Examiner disagrees with Applicant's contention that the relied on section of Walker is not prior art, the Examiner is respectfully requested to indicate which of the provisional applications, and the section therein, which supports the relied on subject matter.

Claims 9-11 depend from claim 8, claims 15-16 depend from claim 13, claim 19 depends from claim 18, claims 21-24 depend from claim 20, claims 27-28 depend from claim 25, and claim 31 depends from claim 30. Therefore, each of these claims is distinguishable over the relied on sections of Walker at least for the same reasons as its parent claim.

Accordingly, Applicants respectfully request the withdrawal of the rejections under 35 U.S.C. § 102(e).

As it is believed that all of the rejections set forth in the Official Action have been fully met, favorable reconsideration and allowance are earnestly solicited. If, however, for any reason the Examiner does not believe that such action can be taken at this time, it is respectfully requested that the Examiner telephone applicants' attorney at (908) 654-5000 in order to overcome any additional objections which the Examiner might have.

Application No.: 10/511,634

Docket No.: SONYJP 3.3-304

If there are any additional charges in connection with this requested amendment, the Examiner is authorized to charge Deposit Account No. 12-1095 therefor.

Dated: August 17, 2009

Respectfully submitted,
Electronic signature: /Lawrence
E. Russ/
Lawrence E. Russ
Registration No.: 35,342
LERNER, DAVID, LITTENBERG,
KRUMHOLZ & MENTLIK, LLP
600 South Avenue West
Westfield, New Jersey 07090
(908) 654-5000
Attorney for Applicant

1022257_1.DOC